

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (currently amended) A method of tuning an application deployed in an application server, ~~comprising the steps of:~~ comprising a processor operable to execute computer program instructions, a memory operable to store the computer program instructions executable by the processor, and the computer program instructions stored in the memory and executable to perform the steps of:

deploying the application in the application server;

invoking an application tuning server-side component operable to retrieve information relating to ~~application~~ parameters of the deployed application that are to be tuned;

receiving specifications of values of application tuning parameters; [[and]]

tuning the deployed application using the received specified parameter values[[]] ; and

displaying an effect on system and application performance in real time.

2. (original) The method of claim 1, wherein the step of invoking the application tuning server-side component is performed in response to an action by an administrator, engineer, or user of the application server.

3. (currently amended) The method of claim [[3]] 2, wherein the information relating to the application parameters of the deployed application that are to be tuned comprises:

current values of ~~application~~ parameters of the deployed application that are to be tuned and measurements of performance of the application.

4. (currently amended) The method of claim 3, wherein the application tuning server-side component is operable to accept input from the administrator, engineer, or user ~~to specify~~ specifying values of the ~~application~~ parameters of the deployed application that are to be tuned.

5. (currently amended) The method of claim 4, wherein the specified values of the ~~application~~ parameters of the deployed application that are to be tuned comprise at least one of:

~~Database Connection Pool~~ database connection pool size, ~~Thread Pool Size~~ thread pool size, HTTP connection pool size, HTTP incoming connection queue length, HTTP Socket timeout, ~~Session~~ session pool size, and Java Virtual Machine tuning parameters.

6. (currently amended) The method of claim 5, wherein the measurements of performance of the application comprise at least one of:

~~Overall~~ overall transactions per second, ~~Average Request Time~~ average request time, HTTP transactions per second, ~~Database~~ database connections used, HTTP connections used, ~~Active~~ active thread count, ~~Overall~~ overall throughput, ~~Database~~ database throughput, HTTP throughput.

7. (original) The method of claim 6, wherein the application tuning server-side component is implemented using Java Management Extensions.

8. (currently amended) A system for tuning an application deployed in an application server comprising:

a processor operable to execute computer program instructions;

a memory operable to store the computer program instructions executable by the processor; and

the computer program instructions stored in the memory and executable to perform the steps of:

deploying the application in the application server;

invoking an application tuning server-side component operable to retrieve information relating to ~~application~~ parameters of the deployed application that are to be tuned;

receiving specifications of values of application tuning parameters; [[and]]

tuning the deployed application using the received specified parameter values[.] ; and

displaying an effect on system and application performance in real time.

9. (original) The system of claim 8, wherein the step of invoking the application tuning server-side component is performed in response to an action by an administrator, engineer, or user of the application server.

10. (currently amended) The system of claim 9, wherein the information relating to the ~~application~~ parameters of the deployed application that are to be tuned comprises:

current values of ~~application~~ parameters of the deployed application that are to be tuned and measurements of performance of the application.

11. (currently amended) The system of claim 10, wherein the application tuning server-side component is operable to accept input from the administrator, engineer, or user ~~to specify~~ specifying values of the application parameters of the deployed application that are to be tuned.

12. (currently amended) The system of claim 11, wherein the specified values of the application parameters of the deployed application that are to be tuned comprise at least one of:

~~Database-Connection-Pool~~ database connection pool size, ~~Thread-Pool-Size~~ thread pool size, HTTP connection pool size, HTTP incoming connection queue length, HTTP Socket timeout, ~~Session~~ session pool size, and Java Virtual Machine tuning parameters.

13. (currently amended) The system of claim 12, wherein the measurements of performance of the application comprise at least one of:

~~Overall~~ overall transactions per second, ~~Average-Request-Time~~ average request time, HTTP transactions per second, ~~Database~~ database connections used, HTTP connections used, ~~Active~~ active thread count, ~~Overall~~ overall throughput, ~~Database~~ database throughput, HTTP throughput.

14. (original) The system of claim 13, wherein the application tuning server-side component is implemented using Java Management Extensions.

15. (currently amended) A computer program product for tuning an application deployed in an application server comprising:

a computer readable storage medium;

computer program instructions, recorded on the computer readable storage medium, executable by a processor, for performing the steps of

deploying the application in the application server;

invoking an application tuning server-side component operable to retrieve information relating to ~~application~~ parameters of the deployed application that are to be tuned;

receiving specifications of values of application tuning parameters; [[and]]

tuning the deployed application using the received specified parameter values[[]] ; and

displaying an effect on system and application performance in real time.

16. (original) The computer program product of claim 15, wherein the step of invoking the application tuning server-side component is performed in response to an action by an administrator, engineer, or user of the application server.

17. (currently amended) The computer program product of claim 16, wherein the information relating to the ~~application~~ parameters of the deployed application that are to be tuned comprises:

current values of ~~application~~ parameters of the deployed application that are to be tuned and measurements of performance of the application.

18. (currently amended) The computer program product of claim 17, wherein the application tuning server-side component is operable to accept input from the administrator, engineer, or user to ~~specify~~ specifying values of the ~~application~~ parameters of the deployed application that are to be tuned.

19. (currently amended) The computer program product of claim 18, wherein the specified values of the ~~application~~ parameters of the deployed application that are to be tuned comprise at least one of:

~~Database-Connection-Pool~~ database connection pool size, ~~Thread-Pool-Size~~ thread pool size, HTTP connection pool size, HTTP incoming connection queue length, HTTP Socket timeout, ~~Session~~ session pool size, and Java Virtual Machine tuning parameters.

20. (currently amended) The computer program product of claim 19, wherein the measurements of performance of the application comprise at least one of:

~~Overall~~ overall transactions per second, ~~Average-Request-Time~~ average request time, HTTP transactions per second, ~~Database~~ database connections used, HTTP connections used, ~~Active~~ active thread count, ~~Overall~~ overall throughput, ~~Database~~ database throughput, HTTP throughput.

21. (original) The computer program product of claim 20, wherein the application tuning server-side component is implemented using Java Management Extensions.

22. (currently amended) An application tuning server-side component operable to tune an application deployed in an application server comprising a processor operable to execute computer program instructions, a memory operable to store the computer program instructions executable by the processor, and the computer program instructions stored in the memory and executable to perform the steps of: ~~by performing the steps of:~~

retrieving information relating to ~~application~~ parameters of the deployed application that are to be tuned;

receiving specifications of values of application tuning parameters; [[and]]

tuning the deployed application using the received specified parameter values[[.]] ; and displaying an effect on system and application performance in real time.

23. (original) The application tuning server-side component of claim 22, wherein the application tuning server-side component is invoked in response to an action by an administrator, engineer, or user of the application server.

24. (currently amended) The application tuning server-side component of claim 23, wherein the information relating to the application parameters of the deployed application that are to be tuned comprises:

current values of ~~application~~ parameters of the deployed application that are to be tuned and measurements of performance of the application.

25. (currently amended) The application tuning server-side component of claim 24, wherein the application tuning server-side component is operable to accept input from the administrator, engineer, or user ~~to specify~~ specifying values of the ~~application~~ parameters of the deployed application that are to be tuned.

26. (original) The application tuning server-side component of claim 25, wherein the application tuning server-side component is implemented using Java Management Extensions.

27. (currently amended) The application tuning server-side component of claim 26, wherein the specified values of the ~~application~~ parameters of the deployed application that are to be tuned comprise at least one of:

~~Database-Connection-Pool~~ database connection pool size, ~~Thread-Pool-Size~~ thread pool size, HTTP connection pool size, HTTP incoming connection queue length, HTTP Socket timeout, ~~Session~~ session pool size, and Java Virtual Machine tuning parameters.

28. (currently amended) The application tuning server-side component of claim 27, wherein the measurements of performance of the application comprise at least one of:

~~Overall~~ overall transactions per second, ~~Average-Request-Time~~ average request time, HTTP transactions per second, ~~Database~~ database connections used, HTTP connections used, ~~Active~~ active thread count, ~~Overall~~ overall throughput, ~~Database~~ database throughput, HTTP throughput.



**Amendments to the Drawings:**

The attached sheet of drawings includes changes to Fig. 4. This sheet, which includes Fig. 4, replaces the original sheet including Fig. 4. In Figure 4, the element “Performance Measurement Objects” that was mislabeled as 410 has been correctly labeled as 411.

Attachment: Annotated Sheet Showing Changes

Replacement Sheet